

IN THE CLAIMS

1. (Currently Amended) A vehicle information system for optimizing vehicle performance and load distribution, comprising:

a first load sensor for generating a first load signal based on a first vehicle load;

a first position sensor for generating a first position signal based on a position of a vehicle axle mounted on a trailer slider which is slidable to a plurality of positions forwardly and rearwardly along a vehicle trailer, the position of the vehicle axle being a position along an axis between a forward and rearward position of the vehicle trailer;

a second position sensor for generating a second position signal based on a position of a vehicle kingpin;

a memory unit storing optimization data;

an evaluation unit in communication with said first load sensor, said first position sensor, said second position sensor and said memory unit;

a general user interface for receiving an input relating to a request for optimizing vehicle performance and load distribution, said general user interface in communication with said evaluation unit; and

wherein said evaluation unit makes an evaluation of said first load signal, said first position signal, said second position signal, and said input and generates an optimization instruction relating to a distance between said vehicle axle and said vehicle kingpin, and said optimization instruction being a desired position of the trailer slider moved along the axis between forward and rearward positions relative to the vehicle trailer.

2. (Currently Amended) A vehicle information system for optimizing vehicle performance and load distribution, comprising:

a first position sensor for generating a first position signal based on an actual location of a trailer slider, ~~first vehicle component~~ said trailer slider slidable to a plurality of positions

forwardly and rearwardly along a vehicle trailer, a location of the trailer slider being a position along an axis between a forward and rearward position of the vehicle trailer;

a first load sensor for generating a first load signal based on a first vehicle load;

an evaluation unit in communication with said first position sensor and said first load sensor, said evaluation unit having a first data output relating to a suggested location of said ~~first vehicle component~~ trailer slider based on said first position signal and said first load signal; and

~~said first vehicle component is a slider~~ said suggested location being a desired position of said trailer slider moved along the axis between forward and rearward positions relative to the vehicle trailer.

3. (Original) The vehicle information system of Claim 2 wherein said first data output is based on a vehicle center of gravity determinable from said first position signal and said first load signal.

4. (Previously Presented) The vehicle information system of Claim 3 including a second data output relating to an instruction for altering said vehicle center of gravity.

5. (Original) The vehicle information system of Claim 2 including a second load sensor for generating a second load signal relating to a second vehicle load over a second vehicle component, said second load sensor in communication with said evaluation unit.

6. (Currently Amedned) The vehicle information system of Claim 2 including a second position sensor for generating a second position signal based on an actual position of a second vehicle component, said second position sensor signal ~~in communication~~ with said evaluation unit.

7.-8. (Cancelled)

9. (Original) The vehicle information system of Claim 2 including a general user interface to receive an input relating to a request for optimizing vehicle performance and load distribution.

10. (Original) The vehicle information system of Claim 2 including a memory unit storing optimization data.

11. (Original) The vehicle information system of Claim 10 wherein said optimization data relates to load limit information.

12. (Currently Amended) A method of adjusting vehicle load distribution comprising:

- a) electronically sensing an actual location of a first vehicle component;
- b) electronically determining a load distribution across a vehicle;
- c) electronically determining an alternative location of the first vehicle component based on a sensed actual location of the first vehicle component and the load distribution across the vehicle;
- d) electronically outputting the alternative location of the first vehicle component to a general user interface, and wherein the first vehicle component is a trailer ~~tandem~~-slider, said trailer slider being movable forwardly and rearwardly along an axis which is perpendicular to a second and third axis of a pair of axles mounted on the trailer slider, and said alternative location being a proposed adjusted position of the trailer slider along the first axis between forward and rearward positions on a trailer.

13. (Previously Presented) The method of adjusting vehicle load distribution of Claim 12 including the step of:

e) adjusting a location of the first vehicle component based on the load distribution.

14. (Previously Presented) The method of Claim 13 including the step of:

f) adjusting the load distribution.

15.-16. (Cancelled)

17. (Currently Amended) The method of Claim 12 wherein step a) comprises determining the actual location of the first vehicle component relative to a second vehicle component.

18. (Original) The method of Claim 17 wherein the second vehicle component comprises a vehicle kingpin.

19. (Original) The method of Claim 12 wherein step b) comprises determining a center of gravity of the vehicle.

20.-21. (Cancelled)